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In the claims:

1. (currently amended) A method for provisioning network services ~~managing connection quality~~ for a user application in an optical communication system, the method comprising:

ascertaining ~~high-level~~ communication requirements and non-requirements of the user application;

determining a set of ~~lower-level~~ optical network communication services for the user application based at least in-part upon the ~~high-level~~ ascertained communication requirements and non-requirements of the user application; and

obtaining from the optical network the ~~lower-level~~ ascertained communication services for the user application.

2. (currently amended) The method of claim 1, wherein determining a set of ~~lower-level~~ communication services for the user application based at least in-part upon the ~~high-level~~ ascertained communication requirements and non-requirements of the user application comprises:

mapping the ~~high-level~~ user application communication requirements and non-requirements to the ~~lower-level~~ optical network communication services.

3. (currently amended) The method of claim 1, wherein obtaining the ~~lower-level~~ communication services for the user application comprises:

interacting with a core optical communication network to obtain the ~~lower-level~~ communication services for the user application.

4. (original) The method of claim 3, wherein the core optical communication network comprises an automatically switched optical network (ASON).

5. (currently amended) The method of claim 1, wherein ~~determining~~ obtaining the ~~lower-level~~ communication services for the user application comprises:

interacting with at least one peer user application ~~users~~ to determine the set of ~~obtain the~~ ~~lower-level~~ communication services for the user application.

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6. (currently amended) An optical service agent for provisioning network services managing connection quality for a user application in an optical communication system, the optical service agent comprising:

application component logic for ascertaining high-level communication requirements and non-requirements of the user application;

network component logic for determining a set of lower-level optical network communication services for the user application based at least in-part upon the high-level communication requirements and non-requirements of the user application; and

network component logic for obtaining the lower-level communication services for the user application.

7. (currently amended) The optical service agent of claim 6, wherein the logic for determining a set of lower-level communication services for the user application based at least in-part upon the high-level communication requirements and non-requirements of the user application comprises:

logic for mapping the high-level communication requirements and non-requirements to the lower-level communication services.

8. (currently amended) The optical service agent of claim 6, wherein the logic for obtaining the lower-level communication services for the user application comprises:

logic for interacting with a core optical communication network to obtain the lower-level communication services for the user application.

9. (currently amended) The optical service agent of claim 8, wherein the logic for interacting with a core optical communication network to obtain the lower-level communication services for the user application comprises a user-to-network interface (UNI).

10. (original) The optical service agent of claim 9, wherein the core optical communication network comprises an automatically switched optical/transport network (ASON), and wherein the UNI comprises an ASON UNI.

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11. (currently amended) The optical service agent of claim 6, wherein the logic for determining the set of obtaining the lower-level communication services for the user application comprises:

logic for interacting with at least one peer user application users to determine obtain the lower-level communication services for the user application.

12. (currently amended) A device comprising:

a user application requiring communication services from an optical communication network; and

an optical service agent operable to

determine a set of communication services required by the user application, and

provision the set of communication services for the user application for managing connection quality for the user application.

13. (currently amended) The device of claim 12, wherein the optical service agent comprises:

logic for ascertaining high-level communication requirements and non-requirements of the user application;

logic for determining a set of lower-level communication services for the user based at least in-part upon the high-level communication requirements and non-requirements of the user application; and

logic for obtaining the lower-level communication services for the user application.

14. (currently amended) The device of claim 13, wherein the logic for determining a set of lower-level communication services for the user application based at least in-part upon the high-level communication requirements and non-requirements of the user application comprises:

logic for mapping the high-level communication requirements and non-requirements to the lower-level communication services.

15. (currently amended) The device of claim 13, wherein the logic for obtaining the lower-level communication services for the user application comprises:

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logic for interacting with a core optical communication network to obtain the lower-level communication services for the user application.

16. (currently amended) The device of claim 15, wherein the logic for interacting with a core optical communication network to obtain the lower-level communication services for the user application comprises a user-to-network interface (UNI).,

17. (original) The device of claim 16, wherein the core optical communication network comprises an automatically switched optical/transport network (ASON)/ and wherein the UNI comprises an ASON UNI.

18. (currently amended) The device of claim 13, wherein the logic for obtaining the lower-level communication services for the user application comprises:

logic for interacting with peer user applications ~~users~~ to obtain the lower-level communication services for the user application.

19. (currently amended) The device of claim 18, wherein the logic for interacting with peer user applications ~~users~~ to obtain the lower-level communication services for the user application comprises a peer-to-peer interface.

20. (currently amended) A system comprising:

an optical communication network; and

a network user application coupled to the optical communication network, wherein the network user application comprises an optical service agent for obtaining optical communication services from the optical communication network via a user-to-network interface (UNI) sufficient to support operation of the network user application and for managing connection quality for the network user.

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21. (original) The system of claim 20, wherein the optical communication network comprises an automatically switched optical/transport network (ASON), and wherein the UNI comprises an ASON UNI.

22. (currently amended) The system of claim 20, wherein the optical service agent comprises: logic for ascertaining ~~high-level~~ communication requirements and non-requirements of the network user application;

logic for determining a set of ~~lower-level~~ communication services for the network user application based at least in-part upon the ~~high-level~~ communication requirements and non-requirements of the network user application; and

logic for obtaining the ~~lower-level~~ communication services for the network user application.

23. (currently amended) The system of claim 22, wherein the logic for determining a set of ~~lower level~~ communication services for the network user application based at least in-part upon the ~~high-level~~ communication requirements and non-requirements of the network user application comprises:

logic for mapping the ~~high-level~~ communication requirements and non-requirements to the ~~lower-level~~ communication services.

24. (currently amended) The system of claim 22, wherein the logic for obtaining the ~~lower-level~~ communication services for the network user application comprises:

logic for interacting with the optical communication network to obtain the ~~lower-level~~ communication services for the network user application.

25. (original) The system of claim 22, further comprising a number of peer network user applications ~~users~~.

26. (currently amended) The system of claim 15, wherein the logic for obtaining the ~~lower-level~~ communication services for the user application comprises:

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logic for interacting with the number of peer network user applications users to obtain the ~~lower-level~~ communication services for the network user application.

27. (currently amended) The optical service agent of claim 11, wherein the logic for interacting with peer user applications users to obtain the ~~lower-level~~ communication services for the user application comprises a peer-to-peer interface.